



Energy Subgroup Interim Report

Subgroup Activity:

The Energy Subgroup has held two interim meetings in Richmond. Meetings were held June 16th and July 7th. Because of the interest in Research and Development and collaboration with Virginia colleges and universities, outreach efforts to the University Economic Developers Association and Council on Virginia's Future have taken place. A number of stakeholders helped in the development of the Virginia Energy Plan, which was presented to the Energy subgroup. There is great interest in nuclear energy and further activity in that area will be an area of outreach. In addition, coordination with the Governor's Commission on Higher Education is paramount due to the workforce needed for advanced technology and advanced manufacturing jobs in the energy sector and emerging technology space.

Analysis:

Virginia has a tremendous amount of energy assets, but the trick is how to optimize all of the assets – and have a net number of jobs to offset potential job loss in other areas. In addition, the subgroup believes the fundamentals that will define energy are technology – not subsidies. The consumer will end up making the decisions about cars, electricity, insulation, etc. and the consumer will determine the price. A challenge to energy in the Commonwealth is how the State Corporation Commission (SCC) plays into this picture as they look into the consumer and the rates.

The Energy Subgroup identified short-term, mid-term and long-term energy job-related sectors. For the short-term (1-2 years) the subgroup identified conservation, biomass and infrastructure (pipelines and transmission lines) as the areas of potential job creation opportunities; mid-term opportunities (3-5 years) are identified in the nuclear sector and uranium mining (if approved); and long-term in the offshore wind and offshore oil and natural gas for potential job creation opportunities. The subgroup identified conservation efforts as the biggest bang for the buck for short-term opportunities.

In addition to the work of the subgroup, it is important to recognize the Virginia Energy Plan for the McDonnell Administration was released on July 1, 2010, with recommendations for energy jobs and innovation in the Commonwealth. The Executive Summary and recommendations are included with the report of the Energy subgroup and the entire Virginia Energy Plan can be found on the Virginia Department of Mines, Minerals and Energy web site:

<http://www.dmme.virginia.gov/DE/VAEnergyPlan/VEP-2010.shtml>

Vision/Strategies:

- I. Analyze existing energy-related programs and initiatives and recommend opportunities to better position Virginia as the Energy Capital of the East Coast.
- II. Assess Energy Transition Work Subgroup recommendations and build upon proposals.
- III. Assess potential of federal programs to leverage for Virginia benefits.
- IV. Assess potential threats to Virginia's energy industry through federal regulation and legislation, and existing workforce – working with the Higher Education Commission.
- V. Analyze existing Virginia energy incentives to ensure flexibility with emerging technologies – such as the solar photovoltaic incentive grant among others – as well as potential unused assets.
- VI. Examine the potential for a Virginia Advanced Energy Fund to attract energy-related economic development projects.
- VII. Analyze what competitor states are doing with regard to energy and recommend similar programs/initiatives that can be launched in the Commonwealth.

Initial Ideas and Recommendations:

In other regions of the United States, mandated renewable portfolio standards are driving the energy sector. Virginia has a voluntary renewable portfolio standard to provide incentives for use of alternative/renewable energy. By building on existing energy resources and moving forward with new technology for the future, there are tremendous opportunities for the Commonwealth to become the Energy Capital of the East Coast – the goal put forth by Governor Bob McDonnell. All energy sectors have competing interests and a coordinated effort – from coal to offshore wind – is necessary to come up with a common ground to work toward this goal.

Initial ideas and recommendations of the subgroup are as follows:

The armed forces are working toward a goal of producing 25 percent of their energy needs from renewable sources by 2025. The significant military presence in the Commonwealth provides a terrific prospect to leverage the military's goal in this regard and provide the infrastructure and manufacturing for this renewable energy portfolio.

The permitting process for energy facilities that are not permit by rule can make it five years before a job can get online. The subgroup seeks methods to make the permitting process easier to move projects online quicker.

While there is a significant amount of natural gas in Southwest Virginia from coalbed methane, the inability to move this natural gas is a hindrance. Improving infrastructure through additional

pipeline can move this source of energy to Southside Virginia and provide additional energy resources.

Nuclear resources must be in the mix of energy resources for the Commonwealth. This includes getting nuclear engineering and nuclear technician programs back online. While Virginia Tech, the University of Virginia and Virginia Commonwealth University have moved in this direction – this is an area of void in the energy workforce. There are two ongoing studies on uranium mining in the Commonwealth and the subgroup emphasized the need to have the studies completed in short order rather than taking multiple years to study.

Research centers in the Commonwealth are key to getting energy-related jobs. There is a consensus that our universities research and development capabilities and collaboration with the private sector are deficient. The five energy centers being brought online by the Virginia Tobacco Commission are an opportunity to create a synergy in this area and also how to better handle intellectual property issues. This is an area to increase energy entrepreneurship and put Virginia on the map as an innovative technology economy. In addition, there is an interest in an Emerging Technologies Fund, similar to a program in Texas, providing flexibility in incentive opportunities as it relates to quickly evolving technologies. Some of the existing Virginia programs, such as the solar photovoltaic incentive program, are outdated.

The subgroup would also like to find opportunities to better use recycled water – especially as it relates to manufacturing facilities and bringing efficiencies.

The group also recognized the potential negative impact of policies coming out of Washington, D.C., both through legislation and regulation. The federal government will be a driver in a number of areas and the Commonwealth needs to formulate a policy to address these concerns.

Next Steps:

The August meeting will focus on our nuclear sector partners and what their vision and needs are for the future in the Commonwealth. In addition, a coordinated meeting or presentation with the Higher Education Commission to discuss energy workforce issues is desired, as well as a presentation from the Virginia Tobacco Commission on their energy-related efforts.